

**ARIEL DEVELOPMENT, INC.**

**ACCIDENT PREVENTION and GENERAL  
PROCEDURES PROGRAM**

**for the  
Rainier Brewery Demolition Project  
(May 2004)**

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# GENERAL INSTRUCTIONS

## OVERVIEW

Industrial injuries create a no-win situation for everyone involved. Employees experience pain, suffering and incapacitation while the company suffers from the loss of the injured person's contributions. This document is designed to assist all Ariel Development, Inc. personnel in assuring that such an undesirable situation will not develop in this company. It provides information and guidance for the establishment and maintenance of an injury-free work environment.

### 1. **Procedures**

This document contains guidance for safety procedures to be followed and forms to be used. Supervisors are expected to integrate the procedures into the appropriate work activity and employees are expected to apply them on the job. The sample forms are to be used if they apply to the job concerned.

### 2. **Dissemination**

A copy of this statement will be issued to all supervisory and management personnel. A copy of the policy statement will be posted on company safety and health bulletin boards.

### 3. **Regulations**

A copy of the following documents will be maintained on each job site:

- a. Chapter 155, Construction Safety Standards from the Division of Industrial Safety and Health, Washington State Department of Labor and Industries.
- b. Our customized copy of this Accident Prevention Program sample outline.
- c. The WISHA Poster, form F416-081-000, which tells employees and employers their rights under the Washington Industrial Safety and Health Act.

**ARIEL DEVELOPEMENT INC.**

**SAFETY AND HEALTH POLICY LETTER**

(September 2003)

The purpose of this policy is to develop a high standard of safety throughout all operations of Ariel Development, Inc. and to ensure that no employee is required to work under any conditions, which are hazardous or unsanitary.

We believe that each employee has the right to derive personal satisfaction from his/her job and the prevention of occupational injury or illness is of such consequence to this belief that it will be given top priority at all times.

It is our to initiate and maintain complete accident prevention and safety training programs. Each individual from top management to the working person is responsible for the safety and health of those persons in their charge and coworkers around them. By accepting mutual responsibility to operate safely, we will all contribute to the well being of our employees.

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Signed, Pres/CEO

# RESPONSIBILITIES

Responsibilities for Safety and Health include the establishment and maintenance of an effective communication system among workers, supervisors and management personnel. To this end, all persons are responsible to assure that their messages are received and understood by the intended receiver. Specific safety and health responsibilities for company personnel are as follows:

## 1. MANAGEMENT OFFICIALS

Active participation in and support of safety and health programs is essential. Management officials will display their interest in safety and health matters at every opportunity. At least one manager (as designated) will participate in the safety and health committee meetings, incident investigations and inspections. Each manager will establish realistic goals for implementing instructions for meeting the goals. Goals and implementing instructions shall be within the framework established by this document. Incentives will be included as part of the instructions.

## 2. SUPERVISORS

The safety and health of the employees they supervise is a primary responsibility of the supervisors. To accomplish this obligation, supervisors will:

1. Assure that all safety and health rules, regulations, policies and procedures are understood and observed.
2. Require the proper care and use of all required personal protective equipment.
3. Identify and eliminate job hazards quickly through job safety analysis procedures. (See the sample Job Safety Analysis form attached to this document.)
4. Inform and train employees on the hazardous chemicals and/or procedures they MAY encounter under normal working conditions or during an emergency situation. (See the sample hazard communication program.)
5. Receive and take initial action on employee suggestions, awards or disciplinary measures.
6. Conduct crew/leader meetings the first five minutes of each work shift to discuss safety and health matters and work plans for the workday.
7. Conduct walk-around safety inspections at the beginning of each job, during each day and at least weekly thereafter.
8. Train employees (new and experienced) in the safe and efficient methods of accomplishing each job or task as necessary.
9. Review injury trends and establish prevention measures.
10. Attend safety meetings and actively participate in the proceedings.
11. Participate in incident investigations and inspections.
12. Promote employee participation in the safety and health program.
13. Actively follow the progress of injured workers and display an interest in their rapid recovery and return to work.
14. Maintain Form 300 Accident Report.
15. Provide accident reports and related information for incorporation into employee records.

### **3. EMPLOYEES**

All Ariel Development, Inc. employees shall observe the items of responsibility established in this document as well as job safety rules which may apply to specific task assignments.

## **SAFETY VIOLATION DISCIPLINARY POLICY**

Quan" Construction Services believes that a Safety and Health Accident Prevention Program is unenforceable without some type of disciplinary policy. Our company believes that in order to maintain a safe and healthful workplace, the employees must be cognizant and aware of all company, State, and Federal Safety and Health regulations as they apply to the specific job duties required. The following disciplinary policy is in effect and will be applied to all safety and health violations.

1. The following steps will be followed unless the seriousness of the violation would dictate going directly to Step 2 or Step 3.
  - a. A first time violation will be discussed orally between company supervision and the employee. This will be done as soon as possible.
  - b. A second time offense will be followed up in written form and a copy of this written documentation will be entered into the employee's personnel folder.
  - c. A third time violation will result in time off or possible termination, depending on the seriousness of the violation.
2. The following activities, but not limited to, be subject to disciplinary action:
  - a. Insubordination,
  - b. Failure to follow orders,
  - c. Failure to work safely and/or use safety equipment,
  - d. Habitual tardiness,
  - e. Unexcused absences,
  - f. Reporting to work under the influence of alcohol and/or drugs,
  - g. Horseplay,
  - h. Theft of Clients or employer's equipment, supplies and materials,
  - i. Fighting on the work site,
  - j. Sexual harassment,
  - k. Racial discrimination,
  - l. Failure to wear assigned respiratory protection,
  - m. Mis-representing Ariel Development, Inc. .

# PROCEDURE FOR INJURY OR ILLNESS ON THE JOB

## 1. ON-SITE SUPERVISOR IMMEDIATELY TAKES CHARGE

- a. A First Aid trained (current card) individual shall supervise and administer first aid as appropriate to the situation. (Good Samaritan Law applies).
- b. The responsible individual will designate someone to, or will, make a phone call for emergency service.
- c. The First Responder or the responsible individual will make arrangements for transportation (ambulance, helicopter, company vehicle, etc.), depending on the seriousness of the injury. Protect the injured person from further injury.
- d. Notify owner or top management, if not already present.
- e. Do not move anything unless necessary, pending investigation of the incident.
- f. Accompany or assign a responsible individual to take injured person(s) to doctor, hospital, home etc. (depending on the extent of injuries).
- g. Accompany or assign a responsible individual to take the injured person to their family doctor, if available.
- h. Remain with the injured person until relieved by other authorized persons (manager, EMT, doctor, etc.).
- i. When the injured person's immediately family is known, the owner or supervisor should properly notify family members, preferable in person, or have an appropriate person do so.

## 2. DOCUMENTATION

1. All safety related incidents that result in the need for on-site or of site medical attention shall be documented.
  - a. Minor injuries – requiring doctor or outpatient care: After the emergency actions following an injury, an investigation of the incident will be conducted by the immediate supervisor and any witness to determine the causes. The findings must be documented on our investigation form.
  - b. Major injuries – fatality or multiple hospitalizations: Top management must see that the Department of Labor and Industries is notified as soon as possible, but at least within 8 hours of the incident. Call or contact in person the nearest office of the Department or call the OSHA toll free central number (1-800-321-6742). Top management will then assist the Department in the investigation.All safety related accidents that result in a work site shut down of more than ten (10) minutes shall be documented.
  - c. The findings must be documented on our incident investigation report form and recorded on the OSHA 300 log, if applicable. (Sample incident investigation report form included in this document.)
2. Accident reporting forms are available in the Appendix.

## 3. NEAR MISSES

1. All near-miss incidents (close calls) must be investigated.
2. Document the finding on the company incident investigation report form.
3. Review the findings at the next safety meetings or sooner if the situation warrants.



*Sample forms for Incident investigation and Employee's Report of Injury are available in the Appendix.*

# **BASIC RULES FOR INCIDENT INVESTIGATION**

1. The purpose of an investigation is to find the cause of an incident and prevent future occurrences, not to fix blame. An unbiased approach is necessary to obtain objective findings.
2. Visit the incident scene as soon as possible – while facts are fresh and before witnesses forget important details.
3. If possible, interview the injured worker at the scene of the incident and “walk” him or her through a re-enactment. Be careful not to actually repeat the act that caused the injury.
4. All interviews should be conducted as privately as possible. Interview witnesses one at a time. Talk with anyone who has knowledge of the incident, even if they did not actually witness the mishap.
5. Consider taking the signed statements in cases where facts are unclear or there is an element of controversy.
6. Graphically document details of the incident: area, tools, and equipment. Use sketches, diagrams, and photos as needed, and take measurements when appropriate.
7. Focus on causes and hazards. Develop an analysis of what happened, how it happened, and how it could have been prevented. Determine what caused the incident itself (unsafe equipment/condition, unsafe act, etc), not just the injury.
8. How will you prevent such incidents in the future? Every investigation should include an action plan.
9. If a third party or defective product contributed to the incident, save any evidence. It could be critical to the recovery of the claim costs.

## **FIRST AID TRAINING, KITS, AND POSTER**

1. The Ariel Development, Inc. project supervisor will ensure that a certified first aid trained person will be on site during all work related activities.
2. To meet the above objectives, the following procedures will be followed:
  - a. All supervisors or persons in charge of crews will be first aid trained unless their duties require them to be away from the jobsite. If so, other persons who are certified in first aid will be designated as the recognized first aider.
  - b. Other persons will be trained in order to augment or surpass the standard requirements.
  - c. Valid first aid cards are recognized as ones that include both first aid and cardiopulmonary resuscitation (CPR) and have not reached the expiration date.
3. First aid training, kits, and procedures will be in accordance with the requirements of the general safety and health standards (WAC 296-800).
  - a. First aid kit locations at this jobsite include burning area and the project office.
  - b. The project supervisor is designated to ensure that the first aid kits are properly maintained and stocked.
4. Posters listing emergency numbers, procedures, etc., will be strategically located, such as on the first aid kit, at telephones, and in other areas where employees have easy access.

## **EXPOSURE TO BLOOD** a Good Samaritan basis.

1. If first aid trained personnel are involved in a situation involving blood, they should:
  - a. Avoid skin contact with blood/other potentially infectious materials by letting the victim help as much as possible, and by using gloves provided in the first aid kit.
  - b. Remove clothing, etc. with blood on it after rendering help.  
Wash thoroughly with soap and water to remove blood. A 10% chlorine bleach solution is good for disinfecting areas contaminated with blood (spills, etc.).
  - c. Report such first aid incidents within the shift to supervisors (time, date, blood presence, exposure, names of others helping).
2. Hepatitis B vaccinations will be provided as soon as possible but not later than 24 hours after the first aid incident.

## **CREW LEADER MEETINGS**

1. We believe that hard work and perseverance are required for the prevention of injuries and illnesses, with the crew leader being the key to a successful result.
2. Purpose: To assist in the detection and elimination of unsafe conditions and work procedures.
3. Procedures: The following guidelines will be followed:
  - a. These meetings are held at the beginning of each job and at least weekly thereafter, according to the various circumstances involved or when necessary to clear working procedures. No set pattern will suit all cases.
  - b. It is important that the crew leader talk daily on injury prevention and immediately upon witnessing an unsafe act.
4. Safety meeting suggested topics:
  - a. Fall protection/fall prevention
  - b. Personal protective equipment
    1. Hard hats
    2. Eye protection
    3. Hearing protection
    4. Footwear
    5. Safety harness/belts
    6. Respiratory protection
  - c. Housekeeping
  - d. Tool inspection
  - e. Emergency procedures
  - f. Electrical safety
  - g. Ladder safety
  - h. Scaffold safety
  - i. Fire prevention/fire extinguishers
  - j. Reporting injuries and unsafe conditions
  - k. Confined spaces
  - l. Lock-out procedures
5. Attendance at safety meetings pre- work daily meetings is mandatory.
  - a. Individuals who refuse to participate in, or miss more than three (3) safety meetings are subject to discipline, including time off without pay to termination of employment.
  - b. For employees who miss a safety meeting, it is the employee's immediate supervisor decision to update the individual of the contents of the missed meeting.

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6. All persons attending a safety meeting shall sign their names in the space provided on the Sign In sheet.
7. The original copy of the safety minutes with attendee signatures shall be incorporated into the project records.
8. Copies of the minutes will be made in response to an employee request or his/her authorized representative.
9. Scope of Activities:
  - a. Conduct in-house safety inspections with supervisor concerned.
  - b. Investigate incidents to uncover trends.
  - c. Review incident reports to determine means or elimination.
  - d. Accept and evaluate employee suggestions.
  - e. Review job procedures and recommend improvements (Job Safety Analysis Form is available in the Appendix)
  - f. Monitor the safety program effectiveness.
  - g. Promote and publicize safety.

### **CONSTRUCTION SAFETY MEETING TOPICS SUGGESTIONS**

1. Fall protection/fall prevention
2. Personal protective equipment
3. Hard hats
4. Eye protection
5. Hearing protection
6. Footwear
7. Safety harness/belts
8. Respiratory protection
9. Housekeeping
10. Tool inspection
11. Emergency procedures
12. Electrical safety
13. Ladder safety
14. Scaffold safety
15. Fire prevention/fire extinguishers
16. Reporting injuries and unsafe conditions
17. Confined spaces
18. Lock-out procedures

### **How to hold a *good* safety meeting**

1. Be certain everyone knows the time and place of the next meeting. You may use the sample form on the next page if you wish.
2. Insist that everyone attend. Before the next meeting, remind those who were late or failed to attend that **attendance is not optional**.
3. Pick an appropriate topic. If you can't think of an appropriate topic, use one from the attached list (these usually apply to all projects).

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4. Start the meeting on time.
5. Don't waste time – give the meeting your undivided attention.
6. Discuss the topic you have chosen and prepared. Don't wait until the meeting to choose your topic.
7. Use handouts or posters to illustrate your topic.
8. Discuss current job site safety events, injuries and close calls.
9. Encourage employees to discuss safety problems as they arise. Do not save safety concerns for the meeting. Allow some time for employee questions or input at the end of the meeting.
10. Invite managers or owners to speak. Ask fellow employees to speak on a safety topic.
11. If you prevented *one* injury, it is time well spent. Your topic may be one that some employees have heard many times, but there may be one person who is new or has never been told of the safety requirement for that topic. Repeating topics several times during the course of a project is beneficial as long as it applies to the work being done.
12. Follow up on employee concerns or questions and get back to them with the answer before the next meeting.
13. Be certain to document the attendance and the topics discussed.

## **WALK-AROUND SAFETY INSPECTIONS**

Walk-around safety inspections will be conducted at the beginning of each job, and once, or more, each day thereafter.

1. The inspections will be conducted jointly by one member of management and one employee, elected by the employees, as their authorized representative.
2. The inspections will be documented and the documentation will be made available for inspection by representatives of the Department of Labor and Industries.
3. The records of the walk-around inspections will be maintained until the completion of the job.

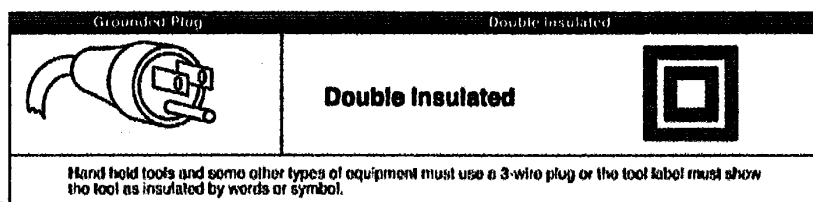
## **GENERAL CONSTRUCTION RULES**

1. Always store materials in a safe manner. Tie down or support piles if necessary to prevent falling, rolling, or shifting.
2. Shavings, dust scraps, oil or grease should not be allowed to accumulate. Good housekeeping is a part of the job.
3. Trash piles must be removed as soon as possible. Trash is a safety and fire hazard.
4. Remove or bend over the nails in lumber that has been used or removed from a structure.
5. Immediately remove all loose materials from stairs, walkways, ramps, platforms, etc.

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6. Do not block aisles, traffic lanes, fire exits, gangways, or stairs.
7. Avoid shortcuts – use ramps, stairs, walkways, ladders, etc.
8. Standard guardrails must be erected around all floor openings and excavations must be barricaded. Contact your supervisor for the correct specifications.
9. Do not remove, deface or destroy any warning, danger sign, or barricade, or interfere with any form of protective device or practice provided for your use or that is being used by other workers.
10. Get help with heavy or bulky materials to avoid injury to yourself or damage to material.
11. Keep all tools away from the edges of scaffolding, platforms, shaft openings, etc.
12. Do not use tools with split, broken, or loose handles, or burred or mushroomed heads. Keep cutting tools sharp and carry all tools in a container.
13. Know the correct use of hand and power tools. Use the right tool for the job.
14. Know the location and use of fire extinguishing equipment and the procedure for sounding a fire alarm.
15. Flammable liquids shall be used only in small amounts at the job location and in approved safety cans.
16. Proper guards or shields must be installed on all power tools before use. Do not use any tools without the guards in their proper working condition. No "homemade" handles or extensions (cheaters) will be used!
17. All electrical power tools (unless double insulated), extension cords, and equipment must be properly grounded.
18. All electrical power tools and extension cords must be properly insulated. Damaged cords must be replaced.
19. Do not operate any power tool or equipment unless you are trained in its operation and authorized by your firm to do so.
20. All electrical power equipment and tools must be grounded or double insulated.



21. Use tools only for their designed purpose.
22. Single phase Plasma Torch electrical supply shall be GFI protected.
23. Three phase Plasma Torch electrical supply shall be grounded as a welding unit.

### **Ladder Safety Rules – (General)**

1. Inspect before use for physical defects.
2. Ladders are not to be painted except for numbering purposes.
3. Do not use ladders for skids, braces, workbenches, or any purpose other than climbing.
4. When you are ascending or descending a ladder, do not carry objects that will prevent you from grasping the ladder with both hands.
5. Always face the ladder when ascending and descending.

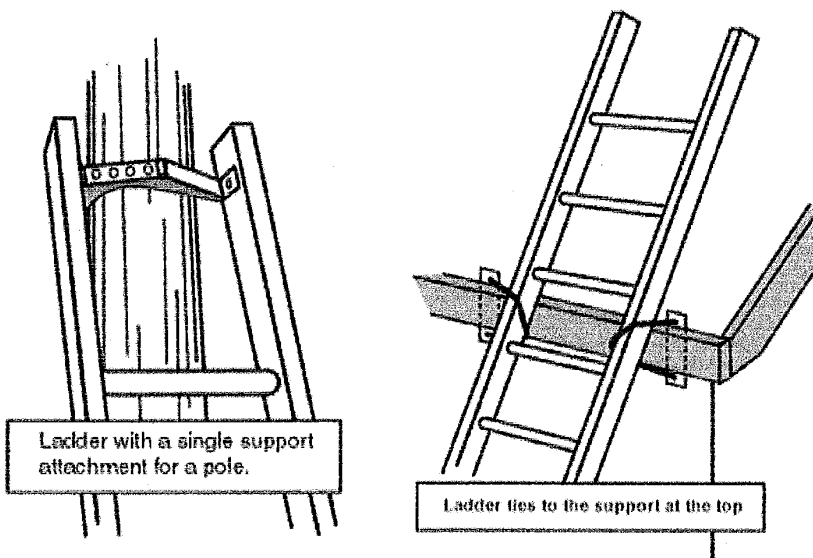
6. If you must place a ladder over a doorway, barricade the door to prevent its use and post a warning sign.
7. Only one person is allowed on a ladder at a time.
8. Do not jump from a ladder when descending.
9. All joints between steps, rungs, and side rails must be tight.
10. Safety feet must be in good working order and in place.
11. Rungs must be free of grease and/or oil.

### **Stepladders**

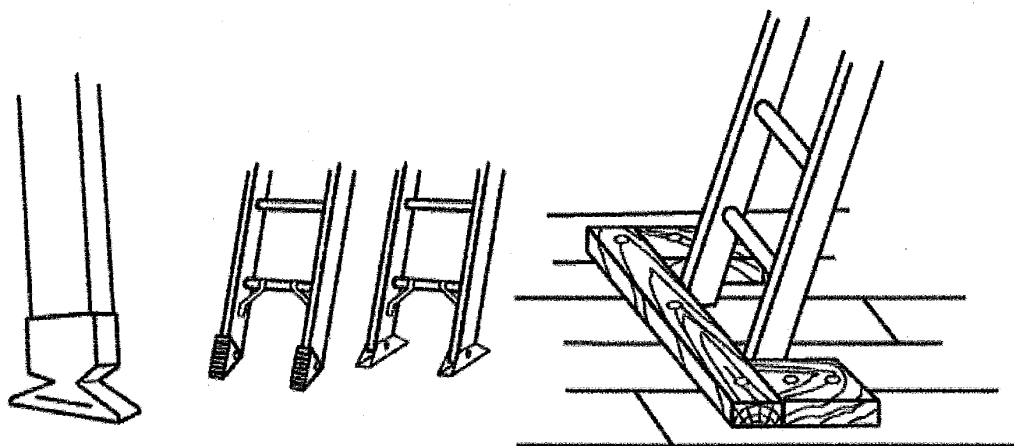
1. Do not place tools or materials on the steps or platform of a stepladder.
2. Do not use the top two steps of a stepladder as a step or stand.
3. Always level all four feet and lock spreaders in place.
4. Do not use a stepladder as a straight ladder.

### **Straight type or extension ladders**

1. All straight or extension ladders must extend at least three feet beyond the supporting object when used as an access to an elevated work area.
2. After raising the extension portion of a two or more stage ladder to the desired height, check to ensure that the safety dogs or latches are engaged.
3. All extension or straight ladders must be secured or tied off at the top.



4. All ladders must be equipped with safety (non-skid) feet.



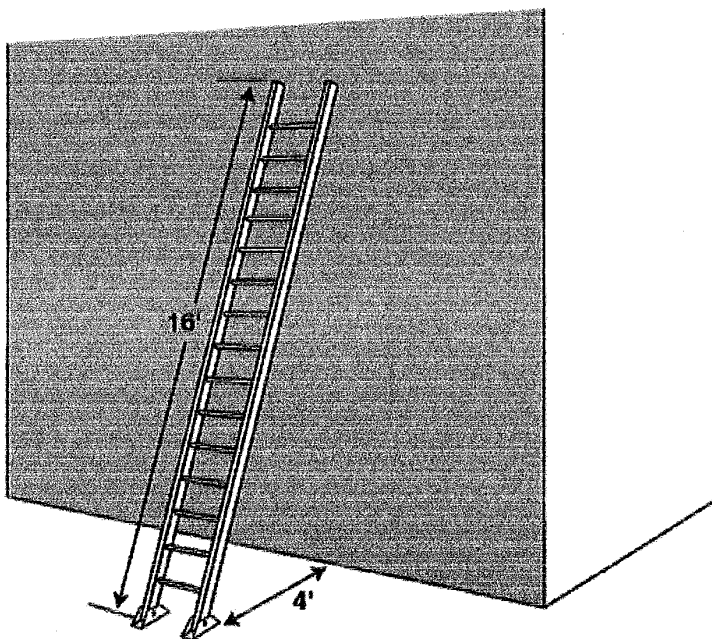
Rubber Safety Feet

Spikes

Cleats Nailed  
to the Floor

Ladders with supports on the bottom.

5. Portable ladders must be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is about one-quarter of the working length of the ladder.





## **Fall Protection Safety Rules**

1. Falls from elevation are a major cause of injuries and deaths in the construction industry. We at Ariel Development, Inc. are committed to eliminating injuries caused by fall hazards by instituting a program of 100% fall protection for all fall hazards 10 feet or greater.
2. All work sites with fall hazards of 10 feet or more will have a site-specific fall protection work plan completed before any employees begin work. The employees on that specific job will be trained in the fall hazards and the method used to implement fall protection. The attached training guide will be used to train employees in the inspection and maintenance of their fall protection equipment, as well as fall protection selection criteria. All employees will use fall protection when there is exposure to a fall hazard of 10 feet or more. Employees who fail to follow this policy are subject to disciplinary action, up to and including dismissal.
3. The evaluation of the jobsite and the completion of the fall protection work plan will be done by a designated "competent person," who has an understanding of WISHA fall protection requirements, the fall protection systems available for use, and has the authority to take corrective action to eliminate employee exposure to fall hazards.
4. A Fall Protection program specific to the Rainier Brewery tank removal project has been established and is available as a separate document.

## **Trenching and Excavating**

1. Not Applicable.

## **SCAFFOLD SAFETY RULES – GENERAL**

1. Before starting work on a scaffold, inspect it for the following:
  - a. Are guardrails, toeboards, and planking in place and secure?
  - b. Are locking pins at each joint in place?
  - c. Are all wheels on moveable scaffolds locked?
2. Do not attempt to gain access to a scaffold by climbing on it (unless it is specifically designed for climbing – ~~always~~ use a ladder).
3. Scaffolds and their components must be capable of supporting four times the maximum intended load.
4. Any scaffold, including accessories such as braces, brackets, trusses, screw legs, ladders, etc., damaged or weakened in any way, must be immediately repaired or replaced.
5. Scaffold planks must extend over their end supports not less than 6 inches nor more than 12 inches, unless otherwise specifically required.
6. Scaffold platforms must be at least 18 inches wide unless otherwise specifically required or exempted.
7. Where persons are required to work or pass under the scaffold, scaffolds shall be provided with a screen between the toeboard and guardrail, extending along the entire opening. The screen must be made of No. 18 gauge U.S. Standard wire, ½ inch mesh or equivalent protection.
8. All scaffolds must be erected level and plumb, and on a solid footing.
9. Do not change or remove scaffold members unless authorized.
10. Do not allow workers to ride on a rolling scaffold when it is being moved. Remove or secure all materials and tools on deck before moving.
11. Do not alter any scaffold member by welding, burning, cutting, drilling, or bending.

## **MOTORIZED VEHICLES AND EQUIPMENT**

1. Do not ride on motorized vehicles or equipment unless a proper seat is provided for each rider.
2. Always be seated when riding authorized vehicles (unless they are designed for standing).
3. Do not operate any motorized vehicle or equipment unless you are specifically authorized to do so by your supervisor.
4. Always use your seat belts in the correct manner.
5. Obey all speed limits and other traffic regulations.
6. Always be aware of pedestrians and give them the right-of-way.
7. Always inspect your vehicle or equipment before and after daily use.
8. Never mount or dismount any vehicles or equipment while they are still in motion.
9. Do not dismount any vehicle without first shutting down the engine, setting the parking brake and securing the load.
10. Do not allow other persons to ride the hook or block, dump box, forks, bucket or shovel of any equipment.
11. Each operator must be knowledgeable of all hand signals and obey them.
12. Each operator is responsible for the stability and security of his/her load.

## **GENERAL MATERIALS HANDLING SAFETY**

1. Be sure materials stored in tiers are stacked, racked, blocked, interlocked, or otherwise secured to prevent sliding, falling, or collapse.
2. Post conspicuously the maximum safe load limits of floors within buildings and structures, in pounds per square foot, in all storage areas, except for floor or slab on grade. Do not exceed the maximum safe loads.
3. Keep aisles and passageways clear to provide for the free and safe movement of material handling equipment or employees. Keep these areas in good repair.
4. Do not store materials on scaffolds or runways in excess of supplies needed for immediate operations.
5. Use ramps, blocking, or grading when a difference in road or working levels exists to ensure the safe movement of vehicles between the two levels.
6. Do not place materials stored inside buildings under construction within 6 feet of any hoistway or inside floor openings, or within 10 feet of an exterior wall, which does not extend above the top of the material stored.
  - a. Anchor and brace temporary floors used in steel erection, concrete forms, and shoring and other "in-process equipment" that are to be left overnight or for longer periods of time to prevent their displacement in any direction. While in "interim storage," this equipment is subject to the provisions in WAC 296-155-325(2)(i) (see previous bullet point: Do not place materials stored inside buildings under construction within 6 feet of any hoistway or inside floor openings, or within 10 feet of an exterior wall which does not extend above the top of the material stored.)
7. When working on stored materials in silos, hoppers, tanks, and similar storage areas, use personal fall arrest equipment meeting the requirements of Chapter 296-155 Part C-1.
8. Segregate non-compatible materials in storage.
9. Stack bagged materials by stepping back the layers and cross-keying the bags at least every ten bags high.

- a. Carefully handle cement and lime delivered in paper bags to prevent the bags from bursting.
- b. Do not pile cement and lime bags more than ten bags high except when stored in bins or enclosures built for the purpose of storage.
- c. When bags are removed from the pile, keep the length of the pile at an even height and maintain the necessary step backs every five bags.
- d. When handling cement and lime bags, wear eye protection preventing any contact with the substance (such as goggles or other sealed eye protection) and wear long sleeve shirts with close fitting collar and cuffs.
- e. Do not wear clothing that has become hard and stiff with cement.
- f. Make sure to report any susceptibility of skin to cement and lime burns.
- g. Make sure that a hand cream or Vaseline and eyewash is provided and kept ready for use to prevent burns.
- h. Store lime in a dry place to prevent a premature slacking action that may cause fire.
- i. Do not stack bricks more than 7 feet high. When a loose brick stack reaches a height of 4 feet, taper it back 2 inches for every foot of height above the 4-foot level.
  - (i) Never stack bricks, for storage purposes, on scaffolds or runways.
  - (ii) Always stack blocks; do not throw in a loose pile.
- k. When stacking masonry blocks higher than 6 feet, taper back the stack one-half block per tier above the 6-foot level.
  - (i) When stacking inside a building, distribute the piles to prevent overloading the floor.
  - (ii) Do not drop or throw blocks from an elevation or deliver blocks through chutes.
    - i. Do not stack lumber more than 20 feet high; if handling lumber manually, do not stack more than 16 feet high.
      - (i) Remove all nails from used lumber before stacking.
      - (ii) Stack lumber on level and solidly supported sills, and such that the stack is stable and self-supporting.
      - (iii) Stack stored lumber on timber sills to keep it off the ground. Sills must be placed level on solid supports.
      - (iv) Place cross strips in the stacks when they are stacked more than 4 feet high.
- l. If not racked, stack and block structural steel, poles, pipe, bar stock, and other cylindrical materials as to prevent spreading or tilting.
  - (i) Wear heavy gloves when handling reinforcing steel.
  - (ii) When bending reinforcing steel on the job, use a strong bench set up on even dry ground or a floor to work on.
  - (iii) Carefully pile structural steel to prevent danger of members rolling off or the pile toppling over.
  - (iv) Keep structural steel in low piles, giving consideration to the sequence of use of its members.
  - (v) Stack corrugated and flat iron in flat piles, with the piles not more than 4 feet high; place spacing strips between each bundle.
- m. Frequently inspect stock piles of sand, gravel, and crushed stone to prevent their becoming unsafe by continued adding to or withdrawing from the stock.
  - (i) Do not remove frozen material in a manner that would produce an overhang.

## **GENERAL RIGGING EQUIPMENT SAFETY**

1. Inspect rigging equipment for material handling prior to use on each shift and as necessary during its use to ensure that it is safe. Remove defective rigging equipment from service.
2. Never load rigging equipment in excess of its recommended safe working load.
3. Remove rigging equipment when not in use from the immediate work area so as not to present a hazard to employees.
4. Mark special rigging accessories (i.e., spreader bars, grabs, hooks, clamps, etc.) or other lifting accessories with the rated capacity. Proof test all components to 125% of the rated load prior to the first use. Maintain permanent records on the job site for all special rigging accessories.

## **DISPOSAL OF WASTE MATERIALS**

1. Whenever materials are dropped more than 20 feet to any point lying outside the exterior walls of the building, use an enclosed chute of wood or equivalent material.
2. When debris is dropped without the use of chutes, make sure that the area onto which the material is dropped is completely enclosed with barricades at least 42 inches high and 20 feet back from the projected edge of the opening above. Post at each level warning signs of the hazard of falling materials. Do not remove debris in this lower area until debris handling ceases above.
3. Remove all scrap lumber, waste material, and rubbish from the immediate work area as the work progresses.
4. Make sure to comply with local fire regulations if disposing of waste material or debris by burning.
5. Keep all solvent waste, oily rags, and flammable liquids in fire-resistant covered containers until removed from the work site.

## **FORKLIFT SAFETY**

1. Employees must be trained on specific equipment that they will be operating in addition to this basic information.
2. The rental agency furnishing forklift equipment shall provide the associated training.

## **LOCKOUT/TAGOUT OF ELECTRICAL CIRCUITS**

1. Controls that are deactivated during the course of work on energized or de-energized equipment or circuits must be tagged and padlocked in the open position.
2. Equipment or circuits that are de-energized must be rendered inoperative and have tags and locked padlocks attached at all points where such equipment or circuits can be energized.
3. Tags must be placed to identify plainly the equipment or circuits being worked on.
4. While any employee is exposed to contact with parts of fixed electric equipment or circuits which have been de-energized, the circuits energizing the parts must be locked out or tagged or both according to the requirements of this section. The requirements must be followed in the order in which they are presented (i.e., (a) of this subsection first, then (b) of this subsection).

*Note 1: As used in this section, fixed equipment refers to equipment fastened in connected by permanent wiring methods.*

*Note 2: Lockout and tagging procedures that comply with chapter 296-24 WAC, Part A-4 will also be deemed to comply with this subsection provided that:*

1. *The procedures address the electrical safety hazards covered by this part; and*

2. *The procedures also incorporate the requirements of (c)(iv) and (d)(ii) of this subsection.*

- (a) The employer must maintain a written copy of the procedures outlined in this subsection and shall make it available for inspection by employees and by the director and his/her authorized representative.

**Note:** The written procedures may be in the form of a copy of this section, WAC 296-155-429.

(b) De-energizing equipment.

- (i) Safe procedures for de-energizing circuits and equipment must be determined before circuits or equipment are de-energized.
- (ii) The circuits and equipment to be worked on must be disconnected from all electric energy sources. Control circuit devices, such as push buttons, selector switches, and interlocks, must not be used as the sole means for de-energizing circuits or equipment. Interlocks for electric equipment must not be used as a substitute for lockout and tagging procedures.
- (iii) Stored electric energy that might endanger personnel must be released. Capacitors must be discharged and high capacitance elements must be short-circuited and grounded, if the stored electric energy might endanger personnel.

**Note:** If the capacitors or associated equipment are handled in meeting this requirement, they must be treated as energized.

- (iv) Stored non-electrical energy in devices that could re-energize electric circuit parts must be blocked or relieved to the extent that the circuit parts could not be accidentally energized by the device.

(c) Application of locks and tags.

- (i) A lock and a tag must be placed on each disconnecting means used to de-energize circuits and equipment on which work is to be performed, except as provided in (c)(iii) and (v) of this subsection. The lock must be attached to prevent persons from operating the disconnecting means unless they resort to undue force or the use of tools.
- (ii) Each tag must contain a statement prohibiting unauthorized operation of the disconnecting means and removal of the tag.
- (iii) If a lock cannot be applied, or if the employer can demonstrate that tagging procedures will provide a level of safety equivalent to that obtained by the use of a lock, a tag may be used without a lock.
- (iv) A tag used without a lock, as permitted by item (iii) of this subsection, must be supplemented by at least one additional safety measure that provides a level of safety equivalent to that obtained by the use of a lock. (Examples of additional

safety measures include the removal of an isolating circuit element, blocking of a controlling switch, or opening of an extra disconnecting device.)

(v) A lock may be placed without a tag only under the following conditions:

(A) Only one circuit or piece of equipment is de-energized; and

(B) The lockout period does not extend beyond the work shifts; and

(C) Employees exposed to the hazards associated with reenergizing the circuit or equipment are familiar with this procedure.

(d) Verification of de-energized condition. The requirements of this subsection must be met before any circuits or equipment can be considered and worked as de-energized.

(i) A qualified person must operate the equipment operating controls or otherwise verify that the equipment cannot be restarted.

(ii) A qualified person must use test equipment to test the circuit elements and electrical parts of equipment to which employees will be exposed and must verify that the circuit elements and equipment parts are de-energized. The test must also determine if any energized conditions exists as a result of inadvertently induced voltage or unrelated voltage backfeed even though specific parts of the circuit have been de-energized and presumed to be safe. If the circuit to be tested is over 600 volts, nominal, the test equipment must be checked for proper operation immediately before and immediately after this test.

(e) Reenergizing equipment. These requirements must be met, in the order given, before circuits or equipment are reenergized, even temporarily.

(i) A qualified person must conduct tests and visual inspections, as necessary, to verify that all tools, electrical jumpers, shorts, grounds, and other such devices have been removed, so that the circuits and equipment can be safely energized.

(ii) Employees exposed to the hazards associated with reenergizing the circuit or equipment must be warned to stay clear of circuits and equipment.

(iii) Each lock and tag must be removed by the employee who applied it or under his or her direct supervision. However, if this employee is absent from the work place, then the lock or tag may be removed by a qualified person designated to perform this task provided that:

(A) The employer ensures that the employee who applied the lock or tag is not available at the work place; and

(B) The employer ensures that the employee is aware that the lock or tag has been removed before he or she resumes work at that work place.

(iv) There must be a visual determination that all employees are clear of the circuits and equipment.

## **WELDING AND CUTTING SAFETY RULES**

1. Specific procedures have been established for the tank cutting.
2. Refer to the document titled: **TORCH CUTTING PROGRAM**

## **HAZARD COMMUNICATION PROGRAM**

### **Purpose:**

The purpose of the Hazard Communication Program is to ensure that the hazards of all chemicals produced or imported by chemical manufacturers or importers are evaluated. Information concerning the hazards must be transmitted to affected employers and employees before they use the products.

### **Procedure:**

1. Inventory Lists – Know the hazardous chemicals in your workplace that are a potential physical or health hazard. Make an inventory list of these hazardous chemicals; this list must be a part of your written program.
2. Make sure there is a material safety data sheet (MSDS) for each chemical and that the inventory list and labeling system reference the corresponding MSDS for each chemical.
3. Labeling System – Each container entering the workplace must be properly labeled with the identity of the product, the hazardous warning, and the name and address of the manufacturer.
4. Written Program – Develop, implement, and maintain a comprehensive written hazard communication program at the workplace that includes provisions for container labeling, material safety data sheets, and an employee training  
Employees must be made aware of where hazardous chemicals are used in their work areas.
5. They must also be informed of the requirements of the Hazard Communication Standard, the availability and location of the written program, the list of hazardous chemicals, and the material safety data sheets.
6. The code specifically requires employers to train employees in the protective practices implemented in their workplace, the labeling system used, how to obtain and use MSDSs, the physical and health hazards of the chemicals and the recognition, avoidance and prevention of accidental entrance of hazardous chemicals into the work environment.

## **RESPIRATOR PROGRAM**

1. Refer to the document titled: Ariel Development, Inc. Respirator Program

## **Hearing protection Conservation Program**

1. Refer to the document titled: **RESPIRATOR PROGRAM**

## **CONFINED SPACES**

1. A confined space has three characteristics; it must have all three characteristics to be considered a confined space:
  - a. Large enough to get your body entirely inside to do your work
  - b. Not designed or intended for continuous occupation
  - c. Restricted entry or exit
2. Confined spaces are not to be entered until they have been carefully evaluated to determine the hazards inside and what type of entry procedure may be used. Types of confined spaces are:
  - a. Non-permit-required confined space (NPRCS)
  - b. Permit-required confined space (PRCS)
  - c. Alternate Entry
3. A job specific confined space program will be established prior to the need for confined space entry.